

Weed Control Stone Fruit

Seasonal Weed Control

Weed	Chemical	Rate per Acre	REI	PHI	MOA	Eff.	Notes
Grass and/or broadleaf weeds	indaziflam Alion	3.5-6.5 fl oz	12 h	14 d	29	NR	WSSA Group 29: inhibits cellulose biosynthesis, disrupts cellulose formation in the cell wall. Alion is a pre-emergent annual grasses and broadleaf weed herbicide. Rate, timing and tank mixes will effect control. It will not control established perennials or emerged annuals. Excessive crop residue or leaf litter may also reduce efficacy. Apply to trees established for at least three years. Apply as a uniform broadcast or banded application to dry soil surface that does not have cracks or depressions. Do not use on sand or soils containing >20% gravel. Do not apply to frozen/snow covered soils or saturated soils. Light irrigation or rain within three weeks is necessary for incorporation. Spring applications are more effective if glyphosate was used in the previous fall or late summer to control perennial weeds. Avoid direct contact with foliage, green bark, or roots.
	dichlobenil Casoron 4G	11-150 lb	12 h	none listed	20/L	NR	WSSA Group 20: inhibits cellulose biosynthesis, disrupts cellulose formation in the cell wall. A soil-active herbicide for long-term or seasonal control of most weeds. Dichlobenil can suppress the growth of some perennials (Canada thistle, quackgrass, field bindweed and bermudagrass), although higher use rates are recommended. Dichlobenil can be applied where weeds are present. Can be used in non-bearing orchards, as long as trees have been established for at least four weeks. More effective when applied in the fall when the soil is cool and still not frozen. Application before a rain will reduce volatility and improve weed suppression. For use in cherries, only.

Weed	Chemical	Rate per Acre	REI	PHI	MOA	Eff.	Notes
	oxyfluorfen Goal 2XL	2-6 pt	24 h	none listed	14	NR	<p>WSSA Group 14: protoporphyrinogen oxidase (PPO) inhibitor. Pre-emergent and early post-emergent control of broadleaf weeds in dormant orchards. May require a tank-mix partner for grass control. It is most effective as a post-emergent when the seedling weeds have less than four leaves. Post-emergence weed control can be improved by tank-mixing with appropriate partners and adjuvants. Apply as a banded application to bare soil under healthy trees. Do not apply after tree buds start to swell or when foliage or fruits are present. Avoid direct plant contact. Moisture within 3 to 4 weeks will enhance pre-emergence herbicide activity.</p>
	oxyfluorfen GoalTender	1-3 pt	24 h	none listed	14	NR	See comments for Goal 2XL.
	pronamide Kerb 50W	2-6 lb	24 h	none listed	3	NR	<p>WSSA Group 3: microtubule assembly inhibitor. Pronamide is a soil-applied product that is used for the control of grasses (annuals and some perennials) and some broadleaved species. It is most effective on cool season grasses. Pronamide can control some small weeds that have emerged. Pronamide should be applied in the fall after harvest, but before leaf drop and soil freezes up to trash-free soil. Use the lower rates for annual grasses and susceptible broadleaf weeds; use the higher rates for controlling quackgrass. Use rate will also be affected by soil texture; use lower rates on coarse soils. Rainfall or overhead irrigation is required following application. Soil temperatures above 55°F may result in reduced weed control. Do not apply around seedling trees less than 1 year old or fall-transplanted trees established less than 1 year or spring transplanted trees established less than 6 months.</p>

Weed	Chemical	Rate per Acre	REI	PHI	MOA	Eff.	Notes
	<p>rimsulfuron Matrix FNV</p>	4 oz	4 h	14 d	2	NR	<p>WSSA Group 2: acetolactate synthase (ALS) inhibitor. Matrix has both pre-emergence and very early post-emergence activity. To broaden the weed control spectrum and/or extend the residual effectiveness rimsulfuron may be tank-mixed with other registered herbicides having a different mode of action. Tank mixes well with Alion. For maximum pre-emergence activity, the herbicide should be applied to a soil surface that is smooth and relatively free of crop and weed trash. Rainfall or irrigation is required within 2 weeks of application for pre-emergence incorporation. Susceptible weeds are controlled from 60 to 90 days after application. For best results, maintain spray tank solution at pH 5 to 7. Avoid contact with green bark, foliage, or fruit.</p>
	<p>norflurazon Solicam DF</p>	2.5-5 lb	12 h	60 d	12	NR	<p>WSSA Group 12: inhibits carotenoid biosynthesis. Norflurazon is effective against annual grasses and some broadleaf weeds, but is not commonly used except as a partner with another product that can broaden the weed control spectrum. May suppress, but not control, Equisetum (field horsetail, scouring rush). Solicam does not have any post-emergence weed control activity. Solicam can be applied from fall to early spring to non-frozen soil before the weeds emerge. The soil should be settled and firm at the time of application and the surface must be free of soil clods, depressions, weeds and other plant residue. Requires moisture within 4 weeks of application to activate. Trees must be established in orchard at least 18 months. Make only one application per year. Repeated applications over a period of years may result in tree injury if rates are not reduced after the first season. Not labeled for cherries on gravelly, sand or loamy sand soils because of potential for tree injury; death of young cherry trees has occurred under these conditions.</p>

Weed	Chemical	Rate per Acre	REI	PHI	MOA	Eff.	Notes
	oryzalin Surflan AS	2-6 qt	24 h	none listed	3	NR	WSSA Group 3: microtubule assembly inhibitor. Surflan is a pre-emergence herbicide that is particularly effective against annual grasses and some broadleaved weed species. It is only labeled for non-bearing trees. Oryzalin should be applied to weed-free soil or with an approved post-emergence herbicide when established weeds are present. Approved tank-mix partners can increase the spectrum of weed control. Delay application to newly planted trees until ground is settled. Requires rain or irrigation to activate herbicide. Shallow cultivation can control newly germinated weeds without reducing herbicide activity. Lower rate is for 4 month's control; higher rate for 8–12 months. Alternate trade name: Oryzalin 4AS. Grazing of livestock is prohibited.

Efficacy numbers denote the relative efficacy of a pesticide against a given pest on a 1 to 4 scale with 1 being low and 4 high efficacy. This information is based primarily on research conducted with WSU researchers in Washington.

Temporary Weed Control

Weed	Chemical	Rate per Acre	REI	PHI	MOA	Eff.	Notes
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Weed	Chemical	Rate per Acre	REI	PHI	MOA	Eff.	Notes
Broadleaf weeds	2,4-D Saber	3 pt	48 h	40 d	4	NR	WSSA Group 4: synthetic auxin. Multiple trade names: Saber, Orchard Master (not on apricots and nectarines), Weedar 64, Amine 4 and 2,4-D. Kills most annual and many perennial broadleaf weeds. Apply as directed spray to weeds. Avoid contact with foliage, limbs and trunk. Do not apply during windy periods. May be used at any time except during bloom but most effective when weeds are small and growing actively. Can be absorbed by tree roots and cause serious injury. Best results are obtained when applied within 2 days following an irrigation and the weeds are growing actively. In sprinkler-irrigated orchards, apply only after irrigation and never to dry or bare ground. Do not apply to trees established in orchard for less than 1 year. Do not make more than 2 applications per year. Do not harvest within 40 days of application.
	clopyralid Stinger	0.33-0.67 pt	12 h	30 d	4	NR	WSSA Group 4: synthetic auxin. Controls many difficult to control weeds in the sunflower, buckwheat (or knotweed), nightshade and legume families. Apply to actively growing weeds in a minimum of 10 gallons of water per acre. Apply to Canada thistle after a majority of basal leaves have emerged, but prior to bud stage. Up to two applications may be made during the crop year, but do not exceed a total of 2/3 pint of product per sprayed acre per year. Do not apply within 30 days of harvest.
	pyraflufen-ethyl Venue	1-4 fl oz	12 h	0 d	14	NR	Group 14: protoporphyrinogen oxidase (PPO) inhibitor. A contact herbicide that is active on annual broadleaf weeds. Use as a directed spray when the weeds are less than 4 inches tall or 3 inches across. Thorough coverage is required for control. Apply during the dormant season and prior to bloom. Addition of a crop oil concentrate or non-ionic surfactant will enhance control. Keep off green stems and foliage; will burn off young green crown and root suckers. Use lower rates for small weeds and higher rate for larger weeds. Tank mixing can increase the weed spectrum that is controlled.

Weed	Chemical	Rate per Acre	REI	PHI	MOA	Eff.	Notes
Grass and/or broadleaf weeds	paraquat dichloride Bonedry	1.7-2.7 pt	24 h	none listed	22	NR	WSSA Group 22: photosystem I electron diverter. Foliage applied, contact herbicide used to control annual broadleaf and grass weeds and to suppress perennial weeds. Apply as a directed spray. May be used at any time, but most effective when weeds are no more than 4–6 inches tall and growing actively. Thorough spray coverage is required to ensure control. Keep off tree foliage, fruit, and green bark. Often tank-mixed with soil residual herbicides to control established weeds. Paraquat is corrosive to aluminum. This is a restricted-use herbicide. Use this product only if you carefully read and follow PPE directions on the label. Use a full face shield, gloves and apron when filling and mixing. Do not ingest or inhale spray mist when spraying. 28 day PHI applies to all stone fruit but peach; PHI for peach is 14 days.
	glyphosate glyphosate	1-3 qt	4 h	17 d	9	NR	WSSA Group 9: EPSPS inhibitor. Glyphosate is a broad-spectrum, systemic herbicide. It is one of the most commonly applied herbicides and is sold under many trade names. Some of the products containing glyphosate are identical to the original product, others vary in their additives (such as wetting agents) and amount of active ingredient. The parent acid, the "active ingredient," is formulated with ammonium, potassium, or isopropylamine and varies in content per gallon from one product to another. The active ingredient is called "acid equivalent" in glyphosate products, and can range from 3 to 5 pounds per gallon, depending on the product. If you switch products, compare the acid equivalent of the two, and make rate adjustments, if necessary. Repeated use of glyphosate has led to the development of glyphosate resistance in many species common to perennial systems in the West Coast; rotate with other foliar-applied herbicides. Water quality and quantity can affect glyphosate performance; high pH, presence of cations, or dirty water can reduce efficacy. See label regarding adjuvant use.

Efficacy numbers denote the relative efficacy of a pesticide against a given pest on a 1 to 4 scale with 1 being low and 4 high efficacy. This information is based primarily on research conducted with WSU researchers in Washington.

See General Recommendations for guidelines on table use. Read all product labels carefully.

